



Safety Data Sheet  
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**Product Name** Silver Nitrate, 0.1 N  
**NCL Catalog Number** S-20  
**Product Description** Laboratory chemical  
**Supplier**  
NCL of Wisconsin, Inc. **Telephone:** 1-800-648-7836 **Fax:** 715-449-2454  
P.O. Box 8 **Emergency Contact:** 1-800-424-9300 (Chemtrec)  
Biramwood, WI 54414 **Email:** [nclabs@nclabs.com](mailto:nclabs@nclabs.com)

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS Classification**

Skin Irritation Category 2  
Eye Irritation Category 2A  
Aquatic Acute Category 3  
Aquatic Chronic Category 3



**Signal Word** Warning

**Hazard Statements**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

P264 Wash exposed skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P501 Dispose of contents/container to comply with local, state and federal regulations.

**Other Hazards Not Contributing to the Classification** None under normal conditions.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Identity** Not applicable  
**Common Name** Not applicable

**Mixture**

Name	CAS #	Approximate %
Water	7732-18-5	>98
Silver Nitrate	7761-88-8	<2

**SECTION 4: FIRST AID MEASURES**

### **Description of First Aid Measures**

<b>General First Aid Measures</b>	Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.
<b>If Inhaled</b>	Remove person to fresh air and keep comfortable for breathing. Allow victim to rest. Get medical attention if you feel unwell.
<b>In Case of Skin Contact</b>	Remove contaminated clothing and wash exposed skin with mild soap and water. Rinse with warm water. Get medical attention if irritation develops.
<b>In Case of Eye Contact</b>	Immediately flush eyes with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops.
<b>If Swallowed</b>	Rinse mouth. Do NOT induce vomiting. Get medical attention if you feel unwell.

### **Most Important Symptoms/Effects Acute and Delayed**

<b>After Inhalation</b>	May cause respiratory irritation.
<b>After Skin Contact</b>	Causes skin irritation.
<b>After Eye Contact</b>	Causes serious eye irritation.
<b>After Ingestion</b>	Nausea and vomiting. Diarrhea. Blue/grey discoloration of the skin. Methemoglobinemia. Change in urine output.
<b>Chronic Symptoms</b>	Blue/grey discoloration of the skin. Methemoglobinemia.

### **Indication of Immediate Medical Attention and Special Treatment Needed**

No additional information available.

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

<b>Suitable Extinguishing Media</b>	Foam. Dry powder. Sand. Carbon dioxide. Water spray.
<b>Unsuitable Extinguishing Media</b>	Do not use high pressure water stream.

### **Special Hazards Arising from the Chemical**

No additional information available.

### **Special Protective Actions for Fire-Fighters**

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment and Emergency Procedures**

<b>Personal Precautions</b>	Wear chemically protective gloves, lab coat, or apron to prevent prolonged or repeated skin contact. Use personal protective equipment (see section 8). Safety glasses, gloves. Evacuate area of non-essential personnel. Eliminate ignition sources.
<b>Environmental Precautions</b>	Prevent entry to surface and ground waters.
<b>Methods and Materials for Containment and Cleaning Up</b>	Clean up spill with inert absorbent material. Collect spillage. Store away from other materials. Ensure compliance with local, state and federal regulations.

## **SECTION 7: HANDLING AND STORAGE**

<b>Precautions for Safe Handling</b>	Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
<b>Conditions for Safe Storage Including any Incompatibilities</b>	Keep in a tightly closed container, stored in a cool, dry, ventilated area. Store separate from strong reducing agents.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control Parameters**

Silver Nitrate (7761-88-8)		
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup>
USA OSHA	OSHA PEL TWA (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup>

**Appropriate Engineering Controls**

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

**Individual Protection Measures**

Avoid all unnecessary exposure.

**Eye/Face Protection**

Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

**Skin Protection**

Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

**Respiratory Protection**

Wear appropriate mask.

**Other Information**

Do not eat, drink or smoke when using this product.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Melting Point/Freezing Point</b>	Not determined
<b>Initial Boiling Point and Boiling Range</b>	Not determined
<b>Flash Point</b>	Not determined
<b>Evaporation Rate</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not determined
<b>Upper/Lower Flammability/Explosive Limits</b>	Not determined
<b>Vapor Pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	Not determined
<b>Solubility</b>	Not determined
<b>Partition Coefficient: n-octanol/water</b>	Not determined
<b>Auto-Ignition Temperature</b>	Not determined
<b>Decomposition Temperature</b>	Not determined
<b>Viscosity</b>	Not determined

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	No data available
<b>Chemical Stability</b>	Stable under ordinary conditions of use and storage.
<b>Possibility of Hazardous Reactions</b>	No data available
<b>Conditions to Avoid</b>	No data available
<b>Incompatible Materials</b>	Strong reducing agents
<b>Hazardous Decomposition Products</b>	When heated to decomposition, can emit toxic gases (oxides of nitrogen).

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity</b>	Not classified
<b>Silver Nitrate (7761-88-8)</b>	
<b>LD50 oral rat</b>	1173 mg/kg
<b>Water (7732-18-5)</b>	
<b>LD50 oral rat</b>	>90000 mg/kg
<b>Skin Corrosion/Irritation</b>	Causes skin irritation.
<b>Serious Eye Damage/Irritation</b>	Causes serious eye irritation.
<b>Respiratory or Skin Sensitization</b>	Not classified
<b>Germ Cell Mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	Not classified
<b>Reproductive Toxicity</b>	Not classified
<b>Specific Target Organ Toxicity (Single Exposure)</b>	Not classified
<b>Specific Target Organ Toxicity (Repeated Exposure)</b>	Not classified
<b>Aspiration Hazard</b>	Not classified
<b>Potential Adverse Human Health Effects and Symptoms</b>	No data available
<b>Symptoms/Injuries After Inhalation</b>	Not classified
<b>Symptoms/Injuries After Skin Contact</b>	Causes skin irritation
<b>Symptoms/Injuries After Eye Contact</b>	Causes serious eye irritation
<b>Symptoms/Injuries After Ingestion</b>	Nausea and vomiting. Diarrhea. Blue/grey discoloration of the skin. Methemoglobinemia. Change in the urine output.
<b>Chronic Symptoms</b>	Discoloration of the skin. Methemoglobinemia.
<b>Likely Routes of Exposure</b>	Inhalation. Skin and eye contact
<b>Other Information</b>	Not available

## SECTION 12: ECOLOGICAL INFORMATION

**Ecology – Water Toxicity** Harmful to aquatic life with long lasting effects.

<b>Silver Nitrate (7761-88-8)</b>	
LC50 Fish 1	0.0039 mg/l (96 h; Pimephales promelas; Flow-through systems)
EC50 Daphnia 1	0.0006 mg/l (48 h; Daphnia magna; LOCOMOTOR EFFECT)
LC50 Fish 2	0.006 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss))
EC50 Daphnia 2	0.006 mg/l (48 h; Crangon sp.)
Threshold Limit Other Aquatic Organisms 1	0.006 mg/l (Pseudomonas putida; TOXICITY TEST)
Threshold Limit Algae 1	0.0007 mg/l (Microcystis aeruginosa; TOXICITY TEST)
Threshold Limit Algae 2	0.0095 mg/l (Scenedesmus quadricauda; TOXICITY TEST)

**Persistence and Degradability** Not applicable.

<b>Bioaccumulative Potential: Silver Nitrate (7761-88-8)</b>	
BCF Fish 1	11-19 (Micropterus salmoides; CHRONIC)
BCF Fish 2	15-150 (Lepomis macrochirus; CHRONIC)
Log Pow	0.19 (Estimated value)
Bioaccumulative Potential	Low potential for bioaccumulation (BCF < 500)

**Mobility in Soil** Not established

**Other Adverse Effects** Avoid release to the environment

## SECTION 13: DISPOSAL CONSIDERATIONS

### Methods of Disposal

**Disposal Recommendations** Dispose of contents/containers in accordance with local, state and federal regulations.

**Other Information** Avoid release to the surrounding environment.

**SECTION 14: TRANSPORT INFORMATION**

**UN Number** Not applicable

**UN Shipping Name** Not applicable

**Transport Hazard Class(es)** Not applicable

**Packing Group** Not applicable

**Environmental Hazards** Not applicable

**Transport in Bulk** Not applicable

**Other Precautions** Not applicable

**SECTION 15: REGULATORY INFORMATION**

<b>Silver Nitrate (7761-88-8)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity)	1 lb
<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

**SECTION 16: OTHER INFORMATION**

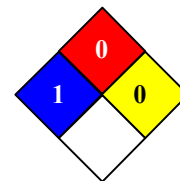
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**NFPA Hazards**

**Health Hazard** 1: Exposure could cause irritation, but only minor residual injury even if no treatment is given.

**Fire Hazard** 0: Materials that will not burn.

**Reactivity/Instability** 0: Normally stable, even under fire exposure conditions, and are not reactive with water.



**HMIS III Rating**

**Health** 1: Irritation or minor reversible injury possible

**Flammability** 0: Materials that will not burn.

**Physical Hazard** 0: Materials that are normally stable.

**Personal Protection** B

<b>S-20</b>	
<b>Health</b>	<b>1</b>
<b>Flammability</b>	<b>0</b>
<b>Physical Hazard</b>	<b>0</b>
<b>Personal Protection</b>	<b>B</b>

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**END OF SAFETY DATA SHEET**